

# **SURVEILLANCE of INFECTIOUS INTESTINAL (IID), ZONOTIC AND VECTORBORNE DISEASE, and OUTBREAKS of INFECTIOUS DISEASE**



**A quarterly report by the Health Protection Surveillance Centre in collaboration with the Departments of Public Health**

**Quarter 2–2007**

**September 2007**

This is the second quarterly report for 2007 produced by the Gastroenteric Unit of the Health Protection Surveillance Centre.

The production of this quarterly report would not be possible without the valuable input and commitment from the Directors of Public Health, Specialists in Public Health Medicine, Surveillance Scientists, Clinical Microbiologists, General Practitioners, Hospital Clinicians, Infection Control, Environmental Health and laboratory personnel, and other professionals who provide the data for the HPSC's surveillance systems.

*Note: Data are collected and analysed using the Computerised Infectious Disease Reporting (CIDR) system. The data in this report are provisional and will not be regarded as final until all returns are received and data have been validated.*

## OUTBREAK SURVEILLANCE

**Table 1. General Outbreaks of Infectious Intestinal Disease (IID) in Quarter 2, 2007**

Month	HSE region	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Apr	E	Comm. Hosp/Long-stay unit	44	-	29-Mar-07	P-P	Noroviral infection
Apr	E	Hospital	10	-	6-Apr-07	P-P	Rotavirus
Apr	MW	Hospital	23	19	30-Mar-07	P-P	Noroviral infection
Apr	NE	Hospital	19	14	-	P-P	Noroviral infection
Apr	S	Comm. Hosp/Long-stay unit	40	0	-	P-P and Airborne	Noroviral infection
Apr	E	Comm. Hosp/Long-stay unit	8	-	12-Apr-07	P-P	Noroviral infection
Apr	SE	Hospital	20	-	-	P-P	Noroviral infection
Apr	S	Coach tour	8	0	-	P-P and Airborne	Noroviral infection
Apr	E	Comm. Hosp/Long-stay unit	14	-	19-Apr-07	P-P	Noroviral infection
Apr	E	Hospital	11	-	19-Apr-07	P-P	Noroviral infection
Apr	SE	Hospital	7	-	16-Apr-07	P-P	AIG
May	SE	Private house	3	2	1-Apr-07	P-P	Cryptosporidiosis
May	E	Crèche	17		1-May-07	P-P	Rotavirus & Norovirus
May	NW	Hotel	50	0	6-May-07	P-P and FB	AIG
May	SE	Comm. Hosp/Long-stay unit	22	0	30-Apr-07	Not Specified	Noroviral infection
May	NE	Hospital	5	5	14-May-07	P-P	AIG
May	NE	Hospital	9	9	-	P-P	<i>Clostridium difficile</i>
May	MW	Private houses	6	2	6-May-07	Waterborne	EHEC
May	S	Comm. Hosp/Long-stay unit	38	0	8-May-07	P-P and Airborne	Noroviral infection
May	S	Hospital	6	6	16-May-07	P-P and Airborne	Noroviral infection
May	W	Hotel	10	-	14-May-07	Foodborne	AIG
May	E	Other	5	-	23-May-07	Unknown	AIG
May	M	Hospital	8	8	4-May-07	Not Specified	Noroviral infection
Jun	E	Hospital	153		30-May-07	P-P	Noroviral infection
Jun	SE	Community outbreak	14	3	27-Mar-07	P-P	Cryptosporidiosis
Jun	NW	Crèche	8	3	-	P-P	Rotavirus
Jun	E	Other	4	-	27-May-07	Not Specified	AIG
Jun	SE	Residential institution	12	1	2-Jun-07	P-P	AIG
Jun	S	Hotel	37	0	5-Jun-07	FB and WB	AIG
Jun	S	Other	23	0	7-Jun-07	Unknown	AIG
Jun	S	Residential institution	27	0	19-Jun-07	P-P and Airborne	Noroviral infection
Jun	E	Comm. Hosp/Long-stay unit	15	-	-	Unknown	Noroviral infection
Jun	S	Comm. Hosp/Long-stay unit	20	-	12-Jun-07	P-P and Airborne	Noroviral infection
Jun	SE	Hospital	8	-	-	P-P	Noroviral infection
Jun	M	Hospital	5	5	3-Jun-07	Not Specified	Noroviral infection

P-P denotes Person-to-Person transmission, FB denotes foodborne, WB denotes waterborne; AIG denotes Acute Infectious Gastroenteritis; EHEC denotes Enterohaemorrhagic E. coli

\* Total numbers ill does not include asymptomatic cases

**Table 2. Family Outbreaks of Infectious Intestinal Disease (IID) in Quarter 2, 2007**

Month	HSE region	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Apr	NE	Private house	3	1	8-Mar-07	P-P	EHEC
Apr	E	Travel related	2	0	-	Not Specified	Campylobacter
Apr	E	Private house	2	0	-	Unknown	Rotavirus
Apr	SE	Private house	3	1	31-Mar-07	Unknown	Cryptosporidiosis
Apr	SE	Private house	2		2-Apr-07	Unknown	Cryptosporidiosis
Apr	NE	Private house	2	0	30-Mar-07	Unknown	Giardiasis
Apr	NE	Private house	2	0	28-Mar-07	P-P	Campylobacter
Apr	NE	Private house	1	0	28-Mar-07	Unknown	EHEC
May	SE	Private house	2	0	30-Mar-07	P-P	EHEC
May	SE	Private house	2	1	22-Mar-07	P-P	Cryptosporidiosis
May	E	Private house	3	-	-	Unknown	Noroviral infection
May	M	Private house	1	1	9-May-07	Animal contact	EHEC
May	SE	Private house	2	-	20-Apr-07	P-P	Cryptosporidiosis
May	SE	Private house	5	-	4-May-07	P-P	Cryptosporidiosis
Jun	M	Private house	2	-	23-May-07	Not Specified	EHEC
Jun	E	Private house	2	-	-	P-P	Rotavirus
Jun	S	Private house	2	-	6-Jun-07	P-P	Cryptosporidiosis

P-P denotes Person-to-Person transmission, FB denotes foodborne; AIG denotes Acute Infectious Gastroenteritis

\* Total numbers ill does not include asymptomatic cases

**Table 3. Non-IID Outbreaks in Quarter 2, 2007**

Month	HSE region	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
May	MW	General	Hospital	4	-	3-Feb-07	Unknown	MSSA
May	S	General	Crèche	20	-	-	Not Specified	Tuberculosis
Jun	S	Family	Private house	2	-	-	P-P	Hepatitis B
Jun	S	Family	Private house	2	-	-	P-P	Hepatitis B
Jun	S	Family	Private house	4	-	-	P-P	Hepatitis B
Jun	E	Family	Travel related	2	1	28-May-07	Foodborne	Trichinosis
Jun	S	Family	Private house	2	-	17-Jan-07	P-P	Hepatitis B
Jun	E	Family	Private house	3	-	-	P-P	Chickenpox

P-P denotes Person-to-Person transmission, FB denotes foodborne

\* Total numbers ill does not include asymptomatic cases

Since July 2001, outbreaks have been reported to HPSC. Initial information is provided by a public health professional using a preliminary notification form (by fax or email). A full report is then forwarded by the lead investigator once more complete data are available. The data requested includes information on the source of reporting of the outbreak, the extent of the outbreak, mode of transmission, location, pathogen involved, laboratory investigation, morbidity and mortality data, suspect vehicle and factors contributing to the outbreak. The data provided on final reports is crucial in providing information on the reasons why the outbreak occurred, the factors that lead to the spread of disease and the lessons that can be learnt to prevent further such outbreaks.

Since the 1<sup>st</sup> January 2004, with the amendment to the Infectious Diseases Regulations (2003), there is a statutory requirement for medical practitioners and clinical directors of a diagnostic laboratory to notify to the medical officer of health ‘any unusual clusters or changing patterns of any illness, and individual cases thereof, that may be of public health concern’.

Tables 1 and 2 present a line listing of all general and family outbreaks of IID reported to HPSC in the second quarter of 2007. There were 35 general and 17 family IID outbreaks reported during this period, resulting in at least 747 people being ill.

Norovirus (either confirmed or suspected) was responsible for the majority of general outbreaks of IID with 30 outbreaks alone confirmed to be caused by this organism (86% of all general outbreaks).

The most common cause of family outbreaks of IID was Cryptosporidiosis, with 6 outbreaks (35% of all family outbreaks) caused by this pathogen. The other pathogens responsible for family outbreaks were EHEC, Campylobacter, Giardiasis, Norovirus and Rotavirus. (Table 2).

Most general outbreaks were transmitted person-to-person (51%). One (in a private house) was reported as waterborne. Twenty-three general outbreaks (66%) were reported to have occurred in healthcare settings, i.e. hospitals or residential institutions, during this period.

There were 8 non-IID outbreaks reported during Quarter 2 - see Table 3.

Table 4 outlines the outbreak rate per HSE-area for outbreaks notified during Q2 2007.

**Table 4. No. of infectious disease outbreaks per HSE region**

HSE Area	No. of outbreaks	Rate per 100,000 population
<b>E</b>	16	1.1
<b>M</b>	4	1.6
<b>MW</b>	3	0.8
<b>NE</b>	7	1.8
<b>NW</b>	2	0.8
<b>SE</b>	13	3.0
<b>S</b>	14	2.3
<b>W</b>	2	0.5
<b>Total</b>	<b>61</b>	<b>1.4</b>

## NOTIFICATIONS OF INFECTIOUS INTESTINAL, ZOOBOTIC AND VECTORBORNE DISEASE

The number of notifications of infectious intestinal, zoonotic and vectorborne disease by HSE-Area for the second quarter of 2007 is shown in Table 5.

**Table 5. Intestinal Infectious, Zoonotic and Vectorborne Disease Notifications Quarter 2, 2007 by HSE-Area**

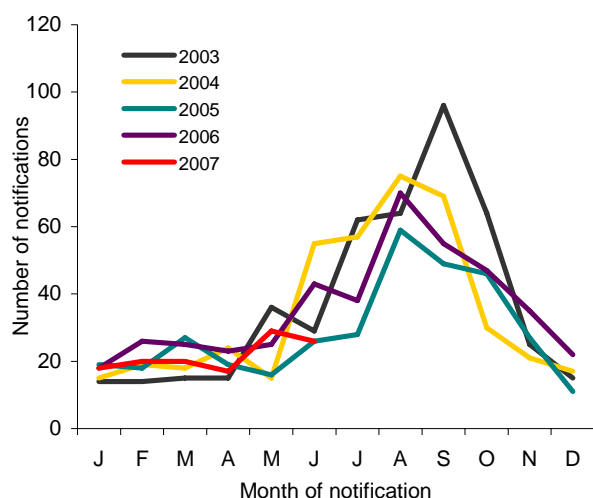
<b>Infectious Intestinal Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Acute infectious gastroenteritis (incl. rotavirus)	384	160	52	74	120	271	163	295	<b>1519</b>
<i>Bacillus cereus</i> foodborne infection/intoxication	0	0	0	0	0	0	0	0	<b>0</b>
Botulism	0	0	0	0	0	0	0	0	<b>0</b>
Campylobacter infection	185	40	65	35	29	55	63	80	<b>552</b>
Cholera	0	0	0	0	0	0	0	0	<b>0</b>
<i>Clostridium perfringens</i> (type A) food-borne disease	0	0	0	0	0	0	0	0	<b>0</b>
Cryptosporidiosis	8	17	35	8	7	39	26	128	<b>268</b>
Enterohaemorrhagic <i>Escherichia coli</i>	6	5	6	4	4	3	2	1	<b>31</b>
Giardiasis	5	1	0	4	0	1	4	0	<b>15</b>
Listeriosis	1	0	0	0	0	0	0	0	<b>1</b>
Noroviral infection	68	31	46	14	2	17	50	10	<b>238</b>
Paratyphoid	~	~	~	~	~	~	~	~	<b>1</b>
Salmonellosis	17	7	0	4	4	12	21	7	<b>72</b>
Shigellosis	4	1	0	0	0	0	3	0	<b>8</b>
Staphylococcal food poisoning	0	0	0	0	0	0	0	0	<b>0</b>
Typhoid	~	~	~	~	~	~	~	~	<b>2</b>
Yersiniosis	0	0	0	0	1	0	0	0	<b>1</b>
<b>Zoonotic Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Anthrax	0	0	0	0	0	0	0	0	<b>0</b>
Brucellosis	0	0	7	0	0	0		0	<b>7</b>
Echinococcosis	0	0	0	0	0	0	0	0	<b>0</b>
Leptospirosis	0	0	0	0	1	0	1	1	<b>3</b>
Plague	0	0	0	0	0	0	0	0	<b>0</b>
Q Fever	1	0	3	0	0	0	1	2	<b>7</b>
Rabies	0	0	0	0	0	0	0	0	<b>0</b>
Toxoplasmosis	10	0	0	0	2	3	0	0	<b>15</b>
Trichinosis	2	0	0	0	0	0	0	0	<b>2</b>
Typhus	0	0	0	0	0	0	0	0	<b>0</b>
<b>Vectorborne Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Malaria	7	3	0	1	0	1	0	2	<b>14</b>

## SALMONELLA ENTERICA

Human salmonellosis (*S. enterica*) is a notifiable disease. The National Reference Laboratory for Salmonella (NSRL) in Ireland was established in 2000 in the Dept. of Medical Microbiology, University College Hospital, Galway. This laboratory accepts *S. enterica* isolates from all clinical and food laboratories in Ireland for serotyping, phage typing and antimicrobial sensitivity testing. Table 6 shows the number of salmonellosis notifications by HSE-Area and month for the second quarter of 2007. Comparison of trends with previous years is shown in Figure 1 below.

**Table 6. Salmonellosis Notifications by HSE-Area and Month, Q2 2007**

Salmonellosis	E	M	MW	NE	NW	SE	S	W	Total
Apr	2	2	0	1	2	5	4	1	17
May	8	3	0	1	0	5	10	2	29
Jun	7	2	0	2	2	2	7	4	26
Total	17	7	0	4	4	12	21	7	72



**Figure 1. Seasonal Distribution of Human Salmonellosis Notifications, 2003-2006 and to end Q2 2007**

Table 7 shows the *S. enterica* isolates typed by the NSRL in the second quarter of 2007 (n=79). The commonest human serotypes isolated were *S. Typhimurium* (n=20 [25%]) and *S. Enteritidis* (n=19 [24 %]).

Eighteen (23%) *S. enterica* isolates were reported to be associated with travel outside of Ireland during this quarter.

### **S. Typhi and S. Paratyphi**

There were two cases of typhoid (one associated with travel to India, other unknown) and one case of paratyphoid (associated with travel to India) reported during Quarter 2, 2007.

### **Outbreaks of salmonellosis**

There were no outbreaks of salmonellosis reported in Q2, 2007 (see Table 2).

**Table 7. Serotypes of *S. enterica* referred to NSRL in Quarter 2, 2007** (Data are provided courtesy of Prof. Martin Cormican and Dr Geraldine Corbett-Feeney, NSRL).

Serotype	E	M	MW	NE	NW	SE	S	W	Total
Agona	0	0	0	0	0	0	0	1	1
Brandenburg	1	0	0	0	0	1	0	0	2
Bredeney	1	0	0	0	0	0	0	0	1
Chomede	0	0	0	0	1	0	0	0	1
Corvallis	0	1	0	0	0	0	0	0	1
Derby	1	0	0	0	0	0	0	0	1
Dublin	0	1	0	1	0	0	0	0	2
Ekotodo	0	0	0	0	0	0	1	0	1
Enteritidis	3	2	0	1	0	2	8	3	19
Give	0	0	0	0	0	1	0	0	1
Grumpensis	1	0	0	0	0	0	0	0	1
Havana	1	0	0	0	0	0	0	0	1
Heidelberg	2	0	0	0	0	0	0	0	2
Indiana	0	0	0	0	0	0	0	1	1
Infantis	0	0	0	0	0	0	3	1	4
Java	0	0	0	0	0	0	2	0	2
Kentucky	1	0	0	0	0	0	0	0	1
Mbandaka	0	1	0	0	0	0	0	0	1
Montevideo	0	0	0	0	0	1	0	0	1
Newport	0	0	0	1	0	0	0	1	2
Panama	0	0	0	0	0	2	2	0	4
Paratyphi A	~	~	~	~	~	~	~	~	1
Stanley	1	0	0	0	0	0	0	0	1
Stanleyville	0	0	0	0	0	0	1	0	1
Typhi	~	~	~	~	~	~	~	~	2
Typhimurium	3	2	0	0	3	4	6	2	20
Unnamed	1	0	0	0	0	0	2	0	3
Virchow	1	0	0	0	0	0	0	0	1
Total	20	7	0	3	4	11	25	9	79

## VEROTOXIGENIC *E. COLI* (VTEC)

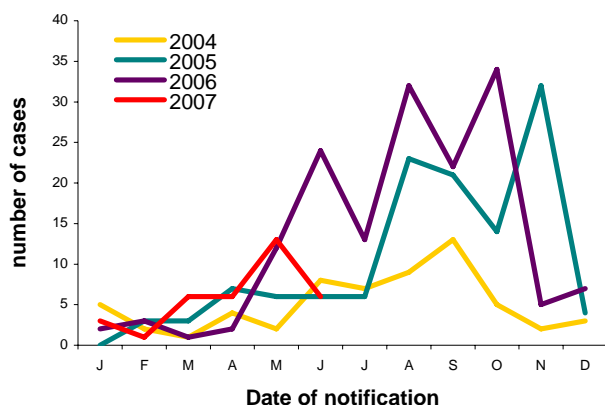
Illness caused by enterohaemorrhagic *E. coli* (EHEC) became a notifiable disease on January 1st 2004. Under EHEC, all verotoxin positive *E. coli*, and *E. coli* of serogroups O157, O26, O111, O103, O145 regardless of whether verotoxin producers, are reported. Previously, VTEC were notified under the category of 'Food Poisoning (bacterial other than Salmonella)'.

The number of EHEC notified in Q2 2007 is shown in Table 5. Under the legislation, it is required that information on EHEC be gathered and reported. However, because of their clinical and public health significance, it is important to distinguish between those isolates that are verotoxin-producers and those that are not.

Thirty-one EHEC were notified in this quarter, 25 of which are VTEC (all confirmed -Table 8). This compares with 38 VTEC cases notified in Q2 2006 and 19 in Q2 2005 (Figure 2). Table 8 shows the number of VTEC cases reported by serogroup and month, Q2 2007.

**Table 8. Confirmed and Probable VTEC Notified by Serogroup and Month, Q2 2007**

Month	O157	O26	Other	Total
Apr	6	0	0	6
May	13	0	0	13
Jun	6	0	0	6
Total	25	0	0	25



**Figure 2. Seasonal distribution of confirmed and probable VTEC cases notified 2004-2006, and to Q2 2007**

Enhanced information is provided by HSE-Area personnel on all VTEC cases. Two cases of HUS due to VTEC were notified in this quarter.

The HSE SWA Public Health Laboratory at Cherry Orchard Hospital, Dublin provides a national *E. coli* O157 and non-O157 diagnostic service for clinical samples, including *E. coli* serotyping, verotoxin detection and VTEC molecular typing. Tables 9 and 10 show the phage types and VT types of VTEC isolates referred to this laboratory in Q2 2007.

**Table 9. Phage Types of VTEC O157 isolates referred to the HSE SWA Public Health Laboratory, Cherry Orchard Hospital in Q2 2007.** (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Phage type	Number of isolates
32	10
14	6
51	3
21/28	2
2	1
43	1
8	1
Not yet available	1
Total	25

**Table 10. Verotoxin typing results of VTEC isolates referred to the HSE SWA Public Health Laboratory, Cherry Orchard Hospital in Q2 2007.** (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Serogroup	vt1	vt2	vt1+vt2	Total
<i>E. coli</i> O157	0	20	4	24

<sup>a</sup>Note: no isolates available for probable cases

### Outbreaks of VTEC infection

During this quarter, five family outbreaks and one general outbreak of VTEC infection were reported; all were due to *E. coli* O157 (see Table 2).



## CAMPYLOBACTER

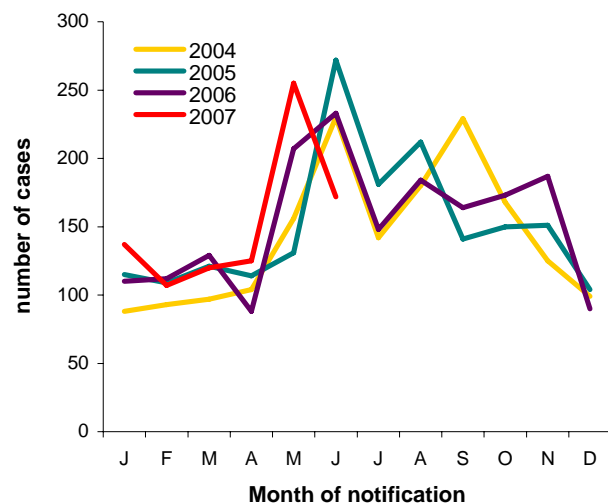
Human campylobacteriosis became a notifiable disease on January 1st 2004. Prior to this, human campylobacter infection was notified under the category of 'Food Poisoning (bacterial other than Salmonella)'. The notifications for the second quarter of 2007 are shown in Table 11. The seasonal trend is broadly similar to the same period for the last year as depicted in Figure 3.

**Table 11. Campylobacter Notifications by HSE-Area and Month, Q2 2007**

Campylobacter Infection	E	M	MW	NE	NW	SE	S	W	Total
Apr	32	10	16	10	5	9	18	25	125
May	93	17	23	14	15	28	25	40	255
Jun	60	13	26	11	9	18	20	15	172
Total	185	40	65	35	29	55	63	80	552

### Outbreaks of Campylobacter infection

Two family outbreaks of campylobacteriosis were reported in Q2 2007 (Table 2).



**Figure 3. Seasonal distribution of Campylobacter notifications 2004-2006, and to end Q2 2007**

## CRYPTOSPORIDIUM

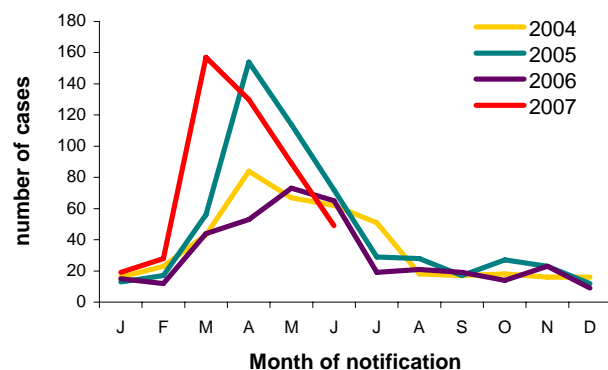
Human cryptosporidiosis became a notifiable disease on January 1st 2004. Prior to this, cryptosporidiosis was notifiable in Ireland only in young children under the category 'Gastroenteritis in Children Under 2'. In Q2 2007, 268 cases of cryptosporidiosis were notified (Table 12), compared to 190 in the same period last year and 345 in Q2 2005 (Figure 4).

**Table 12. Cryptosporidiosis Notifications by HSE-Area and Month, Q2 2007**

Cryptosporidiosis	E	M	MW	NE	NW	SE	S	W	Total
Apr	6	6	18	1	2	16	5	76	130
May	0	5	9	0	4	16	13	42	89
Jun	2	6	8	7	1	7	8	10	49
Total	8	17	35	8	7	39	26	128	268

### Outbreaks of cryptosporidiosis

In quarter 2, there were 2 general and six family outbreaks of cryptosporidiosis reported (Table 1 and Table 2).



**Figure 4. Seasonal distribution of cryptosporidiosis notifications 2004-2006, and to end Q2 2007**



## NOROVIRUS

Human noroviral infection became a notifiable disease on January 1st 2004. There were 238 cases reported in the second quarter of 2007, as shown in Table 13. These data are certainly an under-ascertainment of the true burden of disease due to this pathogen.

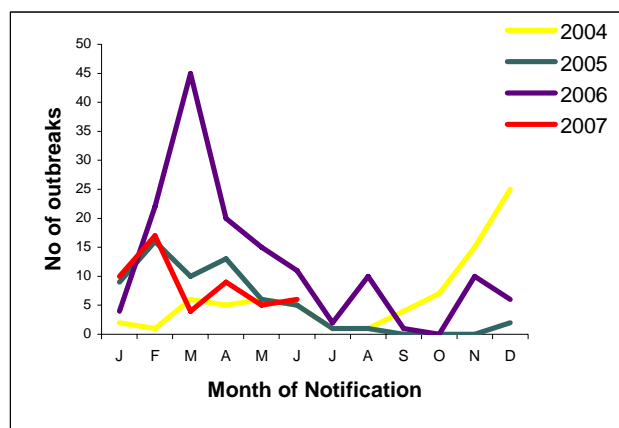
**Table 13. Norovirus Notifications by HSE-Area and Month, Q2 2007**

Noroviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Apr	18	1	30	11	1	13	20	0	94
May	24	0	13	2	1	4	23	7	74
Jun	26	30	3	1	0	0	7	3	70
Total	68	31	46	14	2	17	50	10	238

### Norovirus outbreaks

Norovirus or suspect viral aetiology is the commonest cause of outbreaks of acute gastroenteritis in Ireland. In the second quarter of 2007 there were 30 outbreaks (86% of all general outbreaks) confirmed *or suspected* as being caused by this virus, involving at least 669

people becoming ill, as outlined in Table 1. The seasonal trend is outlined in Figure 5.



**Figure 5. Seasonal distribution of Confirmed Norovirus Outbreaks, 2004-2006 and to end Q2 2007.**

## LISTERIA

Human listeriosis became a notifiable disease on January 1<sup>st</sup> 2004. Prior to this, listeriosis was notified under the category of 'Food Poisoning (bacterial other than Salmonella)' or 'Bacterial Meningitis' as appropriate.

There was one adult case of listeriosis notified in Q2 2007. This compared to no cases in the same period 2006 and three in Q2 2005.

## SHIGELLA

On January 1st 2004, infection with *Shigella* spp. became notifiable as 'Shigellosis'. Prior to this, it was notifiable as 'Bacillary Dysentery'.

During Q2 2007, eight cases of shigellosis were notified (Table 5). This compares with seven cases notified as shigellosis in Q2 in 2006 and nine in Q2 2005.

Two cases were reported as *S. sonnei*, three as *S. flexneri*, and three as *S. species*.

## GIARDIA

Human giardiasis became a notifiable disease on January 1st 2004. Prior to this, giardiasis was notifiable in Ireland only in young children under the category 'Gastroenteritis in Children Under 2'.

During Quarter 2 2007, fifteen cases of giardiasis were notified (Table 5); this compares with eleven cases notified in Q2 2006 and thirteen in Q2 2005.

## FOODBORNE INTOXICATIONS

*Bacillus cereus* foodborne infection/intoxication, botulism, *Clostridium perfringens* (type A) foodborne disease and staphylococcal food poisoning became notifiable diseases on January 1st 2004. Prior

to this, these diseases were notified under the category of 'Food Poisoning (bacterial other than Salmonella)'.

There were no cases of foodborne intoxications notified in Q2 2007 (Table 5).

## ACUTE INFECTIOUS GASTROENTERITIS incl. ROTAVIRUS

Since 1<sup>st</sup> January 2004, there is a notifiable disease category termed 'Acute Infectious Gastroenteritis'. This includes all unspecified causes of gastroenteritis and also specifically, gastroenteritis due to rotavirus. It should be noted that acute infectious gastroenteritis is now notifiable in all age groups, unlike the former notifiable disease category of 'Gastroenteritis in children under 2 years'.

During Quarter 2 2007, there were 1519 notifications of acute infectious gastroenteritis. 1475 were reported as rotavirus (Table 14) and 75% of these were in children under 2 years of age.

**Table 14. Rotaviral Infections Notified under the Category of 'Acute Infectious Gastroenteritis' by HSE-Area and Month, Q2 2007**

Rotaviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Apr	167	55	11	27	49	82	43	94	528
May	134	51	27	31	44	118	71	169	645
Jun	63	54	14	16	27	55	41	32	302
Total	364	160	52	74	120	255	155	295	1475

## NON-IID ZONOTIC DISEASES

Non-IID zoonoses now notifiable include: anthrax, brucellosis, echinococcosis, leptospirosis, plague, Q Fever, toxoplasmosis, trichinosis, typhus and rabies. The Q2 2007 notifications of these zoonotic diseases are reported by HSE-Area in Table 5.

Fifteen cases of toxoplasmosis were notified in this quarter. This compares with seven cases notified in the same period in 2006 and eight cases in Q2 2005.

There were seven cases of brucellosis reported during this quarter compared with eight in Q2 2006 and sixteen in Q2 2005.

Three cases of leptospirosis was notified in Q2 2007; this compares with two in Q2 2006 and one in Q2 2005.

There were also seven cases of Q fever notified this quarter, compared to five in Q2 in 2006 and one in Q2 2005.

## MALARIA

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Malaria is a notifiable disease for many years. The Q2 2007 notifications are reported in Table 5 by HSE-Area.

Fouteen cases of malaria were notified in Q2 2007. This compares with eighteen cases reported in Q2 2006 and sixteen in Q2 2005.

Eleven cases were reported as *P. falciparum*, one as *P. vivax*, one as *P. ovale* and for one notification, the species was not specified.

Ten cases were exposed in Sub-Saharan Africa, and one in Asia, while no data were provided on country of infection for the remaining three cases.

The reason for travel for ten cases was reported as visiting family in country of origin. There was one new entrant, one case associated with holiday travel, with the reason for travel not specified for two cases.

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